STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION

DIVISION OF WATER DIRECTOR'S OFFICE

FRANK H. MURKOWSKI, GOVERNOR

555 Cordova Street
Anchorage, AK 99501-2617
PHONE: (907) 269-7599
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http://www.state.ak.us/dec/

August 14, 2006

Michael F. Gearheard, Director Office of Water and Watersheds US Environmental Protection Agency 1200 Sixth Avenue Seattle, WA 98101

RE: Revisions to Alaska Water Quality Standards for dissolved oxygen criterion and analytical methods

Dear Mr. Gearheard:

The Department of Environmental Conservation (DEC) recently adopted a change in its regulations and is submitting the change to the Environmental Protection Agency (EPA) for review. The change entails a repeal of the dissolved oxygen criterion for the seafood processing use and an update to analytical methods approved by EPA for Clean Water Act purposes. The regulation change was signed by Commissioner Kurt Fredriksson on May 3, 2006 and filed by Lieutenant Governor Leman on May 14, 2006. The requirements under this regulation became effective for State purposes on June 13, 2006.

Please find enclosed:

- 1. a copy of the final regulation in 18 AAC 70.020(b)(15) and 18 AAC 70.020(c)(2):
- 2. the adoption order signed by Commissioner Fredriksson and Lieutenant Governor Leman;
- 3. the May 8, 2006 memo from the Alaska Department of Law certifying the regulation; and
- 4. Frequently Asked Questions which details the technical justification for these changes.

If you have any questions, please contact me or Nancy Sonafrank at (907) 451-2726.

Sincerely,

Lynn J. Tomich Kent

Director

Enclosures

cc:

(w/enc):

Janine Jennings, EPA R10

Lisa McGuire, EPA R10

[w/out enc]:Dan Easton, DEC Deputy Commissioner

Nancy Sonafrank, DEC Water/Fairbanks

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18 AAC 70.020(b)(15) is amended to read:

Water Quality Standards for Designated Uses		
POLLUTANT & WATER USE	CRITERIA	
(15) DISSOLVED GAS, FOR MARINE WATER USES		
(A) Water Supply (i) aquaculture	Surface dissolved oxygen (D.O.) concentration in coastal water may not be less than 6.0 mg/l for a depth of one meter except when natural conditions cause this value to be depressed. D.O. may not be reduced below 4 mg/l at any point beneath the surface. D.O. concentrations in estuaries and tidal tributaries may not be less than 5.0 mg/l except where natural conditions cause this value to be depressed. In no case may D.O. levels exceed 17 mg/l. The concentration of total dissolved gas may not exceed 110% of saturation at any point of sample collection.	
(A) Water Supply	Not applicable [D.O. MUST BE GREATER THAN	
(ii) seafood processing (A) Water Supply (iii) industrial	OR EQUAL TO 5 MG/L]. Not applicable.	
(B) Water Recreation (i) contact recreation	Same as (15)(A)(i).	
(B) Water Recreation (ii) secondary recreation	Same as (15)(A)(i).	
(C) Growth and Propagation of Fish, Shellfish, Other Aquatic Life, and Wildlife	Same as (15)(A)(i).	
(D) Harvesting for Consumption of Raw Mollusks or Other Raw Aquatic Life	Same as (15)(A)(i).	

Register ____, ____ 2006 ENVIRONMENTAL CONSERVATION

18 AAC 70.020(b), note 1, is amended to read:

1. Wherever criteria for fecal coliform bacteria are provided in this section, fecal coliform bacteria enumeration must be determined by the membrane filter technique or most probable number procedure according to any edition of Standard Methods for the Examination of Water and Wastewater, adopted by reference [18TH EDITION, 1992, AS DESCRIBED] in (c)(1) of this section [AND ADOPTED BY REFERENCE], or in accordance with other standards approved by the department and the United States Environmental Protection Agency (EPA).

18 AAC 70.020(b), note 7, is amended to read:

7. Samples to determine concentrations of total aromatic hydrocarbons (TAH) and total aqueous hydrocarbons (TAqH) must be collected in marine and fresh waters below the surface and away from any observable sheen; concentrations of TAqH must be determined and summed using a combination of: (A) EPA Method 602 (plus xylenes) or EPA Method 624 to quantify monoaromatic hydrocarbons and to measure TAH; and (B) EPA Method 610 or EPA Method 625 to quantify polynuclear aromatic hydrocarbons listed in EPA Method 610; use of an alternative method requires department approval; the EPA methods referred to in this note may be found in Appendix A of 40 C.F.R. 136, [APPENDIX A,] as revised as of July 1, 2003 [2002] and adopted by reference.

18 AAC 70.020(b), note 8, is amended to read:

8. Color is as measured in color units on the platinum-cobalt scale according to

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any edition of Standard Methods for the Examination of Water and Wastewater, adopted by

reference [18TH EDITION, 1992 AS DESCRIBED] in (c)(1) of this section [AND ADOPTED

BY REFERENCE1.

The lead-in language of 18 AAC 70.020(c) is amended to read:

(c) Water quality must [WILL] be analyzed according to

18 AAC 70.020(c)(1) is amended to read:

(1) Standard Methods for the Examination of Water and Wastewater, 18th edition [EDITION], 1992, 19th edition, 1995, or 20th edition, 1998, published jointly by the American Public Health and American Water Works Associations, and the Water Environment Federation; the editions of Standard Methods for the Examination of Water and Wastewater listed in this paragraph are adopted by reference, except that analytical methods 3111B, 3111D, 3112B, 3113B, and 3114B in the 20th edition are not adopted by reference and are not approved [(PUBLICATION OFFICE: AMERICAN PUBLIC HEALTH ASSOCIATION, 1015 15TH STREET NW, WASHINGTON, D.C. 20005)];

18 AAC 70.020(c)(2) is amended to read:

(2) Methods for Chemical Analysis of Water and Wastes, March 1983 [MARCH 1979, TECHNICAL REPORT NO. EPA 600-4-79-020], Environmental Monitoring and Support Laboratory, Office of Research and Development, United States Environmental Protection

Register, 2006	ENVIRONMENTAL CONSERVATION
Agency, Technical Report	No. EPA-600/4-79-020, adopted by reference [CINCINNATI,
OHIO 45268 (AVAILABLI	E FROM THE NATIONAL TECHNICAL INFORMATION
SERVICE, UNITED STAT	ES DEPARTMENT OF COMMERCE, SPRINGFIELD, VIRGINA
22161, ORDER NO. PB 29	7686)];

18 AAC 70.020(c)(3) is amended to read:

(3) EPA's Guidelines Establishing Test Procedures for the Analysis of

Pollutants Under the Clean Water Act; National Primary Drinking Water Regulations; and

National Secondary Drinking Water Regulations; Methods Update, 67 Fed. Reg. 65220
65253 (October 23, 2002), adopted by reference [GUIDELINES ESTABLISHING TEST

PROCEDURES FOR THE ANALYSIS OF POLLUTANTS; FINAL RULE AND INTERIM

FINAL RULE AND PROPOSED RULE, FEDERAL REGISTER PART VIII, EPA, FRIDAY,

OCTOBER 26, 1984, 40 C.F.R. PART 136, VOL. 49, NO. 209];

18 AAC 70.020(c)	(4) is rep	eale	d:		
(4)	repealed		/	/	,

18 AAC 70.020(c)(5) is amended to read:

(5) Methods for Organic Chemical Analysis of Municipal and Industrial
Wastewater, July 1982 [TECHNICAL REPORT NO. EPA 600 14-82-057], Environmental
Monitoring and Support Laboratory, Office of Research and Development, United States
Environmental Protection Agency, Technical Report No. EPA-600/4-82-057, adopted by

Register	,2006 ENV	TRONMENTAL CON	SERVATION	
reference [C	INCINNATI, OH 4	5268];		
(Eff. 11/1/97	, Register 143; am 4	1/29/99, Register 150; a	ım 5/27/99, Register 150	; am 6/22/2003
Register 166;	; am/,	Register)		
Authority:	AS 46.03.020	AS 46.03.070	AS 46.03.080	
	AS 46.03.050			

Editor's note: Federally-promulgated water quality standards for the State of Alaska regarding toxic substances, including human health criteria and aquatic life criteria, are found at 40 C.F.R. 131.36. The documents adopted by reference in 18 AAC 70.020 may be viewed at the department's Anchorage, Fairbanks, and Juneau offices. The United States Department of Interior documents adopted by reference in 18 AAC 70.020(b), notes 2 and 3, are also available from that agency. The United States Department of Agriculture document adopted by reference in 18 AAC 70.020(b), note 3, is also available from the USDA Forest Service Pacific Northwest Forest and Range Experiment Station, P.O. Box 909, Juneau, Alaska 99802. The document adopted by reference in 18 AAC 70.020(b), note 4, is also available from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428-2959. The documents adopted by reference in 18 AAC 70.020(b), notes 6 and 10, are also available from the Superintendent of Documents, United States Government Printing Office, Washington, D.C. Information on purchasing Standard Methods for the Examination of Water and Wastewater, adopted by reference in 18 AAC 70.020(c), may be obtained by contacting the American Public Health Association, 1015 15th Street NW, Washington, D.C. 20005). Information on purchasing Methods for Chemical Analysis of Water and

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Wastes and Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, adopted by reference in 18 AAC 70.020(c), may be obtained by contacting the National Technical Information Service (NTIS), United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161; telephone (800) 553-6847; fax (703) 487-4650.

Methods for Chemical Analysis of Water and Wastes is also available, at no cost, for download at the website for the United States Environmental Protection Agency, National Environmental Publications Information System (NEPIS), Internet address: http://nepis.epa.gov.

As of Register 178 (July 2006), the regulations attorney made technical revisions under AS 44.62.125(b)(6) to 18 AAC 70.020(b).

The lead-in language of 18 AAC 70.030(a) is amended to read:

18 AAC 70.030. Whole effluent toxicity limit. (a) An effluent discharged to a water may not impart chronic toxicity to aquatic organisms, expressed as 1.0 chronic toxic unit, at the point of discharge, or if the department authorizes a mixing zone in a permit, approval, or certification, at or beyond the mixing zone boundary, based on the minimum effluent dilution achieved in the mixing zone. If the department determines that an effluent has reasonable potential to cause or contribute to exceedance of the whole effluent toxicity limit, the department will require whole effluent toxicity testing as a condition of a permit, approval, or certification. The permittee shall use methods and species approved by the United States Environmental Protection Agency in Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, 4th edition (2002), Technical Report No. EPA-

tegister, 2006 ENVIRONMENTAL CONSERVATION
21-R-02-013, adopted by reference, and [(2D ED. 1989) (OFFICE OF RESEARCH AND
DEVELOPMENT, CINCINNATI, OH, EPA-600/4-89/001),] Short-term Methods for Estimation
he Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine
Organisms, 1st edition (August 1995), Technical Report No. EPA/600/R-95/136, adopted by
eference [(1988) (OFFICE OF RESEARCH AND DEVELOPMENT, CINCINNATI, OH,
PA-600/4-87/028), AND SUPPLEMENT TO "SHORT-TERM METHODS FOR ESTIMATING
THE CHRONIC TOXICITY OF EFFLUENTS AND SURFACE WATERS TO FRESHWATER
ORGANISMS" (SEPTEMBER 1989) (OFFICE OF RESEARCH AND DEVELOPMENT,
CINCINNATI, OH, EPA-600/4-89/001a, REVISION 1)], or alternate methods and species
pproved by the department that provide equivalent estimates of chronic toxicity. The
epartment will require that the testing use sensitive and biologically important life stages of
ndigenous species, as the department considers necessary and feasible to protect aquatic life
ully. The department will reduce the frequency of, or eliminate, whole effluent toxicity testing
••
Eff. 11/1/97, Register 143; am 4/29/99, Register 150; am//, Register)
authority: AS 46.03.020 AS 46.03.070 AS 46.03.080
A S 46 02 050

Editor's note: Short-term Methods for Estimating the Chronic Toxicity of Effluents

and Receiving Waters to Freshwater Organisms and Short-term Methods for Estimating the

Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine

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Organisms, adopted by reference in 18 AAC 70.030(a), are available for viewing at the department's Anchorage, Fairbanks, and Juneau offices. Those publications may also be obtained by contacting the United States Environmental Protection Agency, National Service Center for Environmental Publications (NSCEP), P.O. Box 42419, Cincinnati, Ohio 45242; telephone: (800) 490-9198; fax: (513) 489-8695. In addition, Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms is available at the website for the United States Environmental Protection Agency, Office of Water, Internet address: http://yosemite.epa.gov/water/owrcatalog.nsf; Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms is available at the website for the United States Environmental Protection Agency, National Environmental Publications Information System (NEPIS), Internet address: http://nepis.epa.gov.

18 AAC 70.990(34) is amended to read:

(34) "mean" means the average of values obtained over a specified time period and, for fecal coliform analysis, is computed as a geometric mean [LOGARITHM];

18 AAC 70.990(52) is amended to read:

(52) "settleable solids" means solid material of organic or mineral origin that is transported by and deposited from water, as measured by the volumetric Imhoff cone method and at the method detection limits specified in method 2540(F), in any edition of Standard Methods for the Examination of Water and Wastewater, adopted by reference in 18 AAC

Register	, 2006	ENVIRONMENTAL CO	NSERVATION
70.020(c)(1)	[18TH EDIT	ION (1992)];	
18 AAC 70.9	990(70) is am	ended to read:	
	(70) "milli	equivalents per <u>liter</u> [LITTE	ER]" or "meq/l" mean milligrams per liter
divided by th	e molecular v	weight of a chemical species	s, and multiplied by the electrical charge
or valence o	f the species	THE CHEMICAL COMPO	OUND];
(Eff. 11/1/97	, Register 143	3; am 4/29/99, Register 150;	am 6/22/2003, Register 166; am
//	_, Register		·
Authority:	AS 46.03.0	10 AS 46.03.080	AS 46.03.110
	AS 46.03.0	20 [AS 46.03.090]	AS 46.03.710
	AS 46.03.0	50 AS 46.03.100	AS 46.03.720
	AS 46.03.0	70	

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18 AAC 70.020(b)(15) is amended to read:

Water Quality	Standards for Designated Uses
POLLUTANT & WATER USE (15) DISSOLVED GAS, FOR	CRITERIA
MARINE WATER USES	
(A) Water Supply (i) aquaculture	Surface dissolved oxygen (D.O.) concentration in coastal water may not be less than 6.0 mg/l for a depth of one meter except when natural conditions cause this value to be depressed. D.O. may not be reduced below 4 mg/l at any point beneath the surface. D.O. concentrations in estuaries and tidal tributaries may not be less than 5.0 mg/l except where natural conditions cause this value to be depressed. In no case may D.O. levels exceed 17 mg/l. The concentration of total dissolved gas may not exceed 110% of saturation at any point of sample collection.
(A) Water Supply (ii) seafood processing	Not applicable [D.O. MUST BE GREATER THAN OR EQUAL TO 5 MG/L].
(A) Water Supply (iii) industrial	Not applicable.
(B) Water Recreation (i) contact recreation	Same as (15)(A)(i).
(B) Water Recreation (ii) secondary recreation	Same as (15)(A)(i).
(C) Growth and Propagation of Fish, Shellfish, Other Aquatic Life, and Wildlife	Same as (15)(A)(i).
(D) Harvesting for Consumption of Raw Mollusks or Other Raw Aquatic Life	Same as (15)(A)(i).

Register 178, Only 2006 ENVIRONMENTAL CONSERVATION 18 AAC 70.020(b), note 1, is amended to read:

1. Wherever criteria for fecal coliform bacteria are provided in this section, fecal coliform bacteria enumeration must be determined by the membrane filter technique or most probable number procedure according to any edition of Standard Methods for the Examination of Water and Wastewater, adopted by reference [18TH EDITION, 1992, AS DESCRIBED] in (c)(1) of this section [AND ADOPTED BY REFERENCE], or in accordance with other standards approved by the department and the United States Environmental Protection Agency (EPA).

18 AAC 70.020(b), note 7, is amended to read:

7. Samples to determine concentrations of total aromatic hydrocarbons (TAH) and total aqueous hydrocarbons (TAqH) must be collected in marine and fresh waters below the surface and away from any observable sheen; concentrations of TAqH must be determined and summed using a combination of: (A) EPA Method 602 (plus xylenes) or EPA Method 624 to quantify monoaromatic hydrocarbons and to measure TAH; and (B) EPA Method 610 or EPA Method 625 to quantify polynuclear aromatic hydrocarbons listed in EPA Method 610; use of an alternative method requires department approval; the EPA methods referred to in this note may be found in Appendix A of 40 C.F.R. 136, [APPENDIX A,] as revised as of July 1, 2003 [2002] and adopted by reference.

18 AAC 70.020(b), note 8, is amended to read:

8. Color is as measured in color units on the platinum-cobalt scale according to

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any edition of Standard Methods for the Examination of Water and Wastewater, adopted by

reference [18TH EDITION, 1992 AS DESCRIBED] in (c)(1) of this section [AND ADOPTED

BY REFERENCE].

The lead-in language of 18 AAC 70.020(c) is amended to read:

(c) Water quality must [WILL] be analyzed according to

18 AAC 70.020(c)(1) is amended to read:

(1) Standard Methods for the Examination of Water and Wastewater, 18th edition [EDITION], 1992, 19th edition, 1995, or 20th edition, 1998, published jointly by the American Public Health and American Water Works Associations, and the Water Environment Federation; the editions of Standard Methods for the Examination of Water and Wastewater listed in this paragraph are adopted by reference, except that analytical methods 3111B, 3111D, 3112B, 3113B, and 3114B in the 20th edition are not adopted by reference and are not approved [(PUBLICATION OFFICE: AMERICAN PUBLIC HEALTH ASSOCIATION, 1015 15TH STREET NW, WASHINGTON, D.C. 20005)];

18 AAC 70.020(c)(2) is amended to read:

(2) Methods for Chemical Analysis of Water and Wastes, March 1983 [MARCH 1979, TECHNICAL REPORT NO. EPA 600-4-79-020], Environmental Monitoring and Support Laboratory, Office of Research and Development, United States Environmental Protection

Register 178, July 2006 ENVIRONMENTAL CONSERVATION

Agency, Technical Report No. EPA-600/4-79-020, adopted by reference [CINCINNATI,

OHIO 45268 (AVAILABLE FROM THE NATIONAL TECHNICAL INFORMATION

SERVICE, UNITED STATES DEPARTMENT OF COMMERCE, SPRINGFIELD, VIRGINA

22161, ORDER NO. PB 297686)];

18 AAC 70.020(c)(3) is amended to read:

(3) EPA's Guidelines Establishing Test Procedures for the Analysis of

Pollutants Under the Clean Water Act; National Primary Drinking Water Regulations; and

National Secondary Drinking Water Regulations; Methods Update, 67 Fed. Reg. 65220
65253 (October 23, 2002), adopted by reference [GUIDELINES ESTABLISHING TEST

PROCEDURES FOR THE ANALYSIS OF POLLUTANTS; FINAL RULE AND INTERIM

FINAL RULE AND PROPOSED RULE, FEDERAL REGISTER PART VIII, EPA, FRIDAY,

OCTOBER 26, 1984, 40 C.F.R. PART 136, VOL. 49, NO. 209];

18 AAC 70.020(c)(4) is repealed:

(4) repealed 6/13/2006

18 AAC 70.020(c)(5) is amended to read:

(5) Methods for Organic Chemical Analysis of Municipal and Industrial
Wastewater, July 1982 [TECHNICAL REPORT NO. EPA 600 14-82-057], Environmental
Monitoring and Support Laboratory, Office of Research and Development, United States
Environmental Protection Agency, Technical Report No. EPA-600/4-82-057, adopted by

Register 178, July 2006 ENVIRONMENTAL CONSERVATION reference [CINCINNATI, OH 45268];

(Eff. 11/1/97, Register 143; am 4/29/99, Register 150; am 5/27/99, Register 150; am 6/22/2003,

Register 166; am _(_/13/2006, Register 178)

Authority:

AS 46.03.020

AS 46.03.070

AS 46.03.080

AS 46.03.050

Editor's note: Federally-promulgated water quality standards for the State of Alaska regarding toxic substances, including human health criteria and aquatic life criteria, are found at 40 C.F.R. 131.36. The documents adopted by reference in 18 AAC 70.020 may be viewed at the department's Anchorage, Fairbanks, and Juneau offices. The United States Department of Interior documents adopted by reference in 18 AAC 70.020(b), notes 2 and 3, are also available from that agency. The United States Department of Agriculture document adopted by reference in 18 AAC 70.020(b), note 3, is also available from the USDA Forest Service Pacific Northwest Forest and Range Experiment Station, P.O. Box 909, Juneau, Alaska 99802. The document adopted by reference in 18 AAC 70.020(b), note 4, is also available from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428-2959. The documents adopted by reference in 18 AAC 70.020(b), notes 6 and 10, are also available from the Superintendent of Documents, United States Government Printing Office, Washington, D.C. Information on purchasing Standard Methods for the Examination of Water and Wastewater, adopted by reference in 18 AAC 70.020(c), may be obtained by contacting the American Public Health Association, 1015 15th Street NW, Washington, D.C. 20005). Information on purchasing Methods for Chemical Analysis of Water and

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Wastes and Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, adopted by reference in 18 AAC 70.020(c), may be obtained by contacting the National Technical Information Service (NTIS), United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161; telephone (800) 553-6847; fax (703) 487-4650.

Methods for Chemical Analysis of Water and Wastes is also available, at no cost, for download at the website for the United States Environmental Protection Agency, National Environmental Publications Information System (NEPIS), Internet address:

http://nepis.epa.gov.

As of Register 178 (July 2006), the regulations attorney made technical revisions under AS 44.62.125(b)(6) to 18 AAC 70.020(b).

The lead-in language of 18 AAC 70.030(a) is amended to read:

18 AAC 70.030. Whole effluent toxicity limit. (a) An effluent discharged to a water may not impart chronic toxicity to aquatic organisms, expressed as 1.0 chronic toxic unit, at the point of discharge, or if the department authorizes a mixing zone in a permit, approval, or certification, at or beyond the mixing zone boundary, based on the minimum effluent dilution achieved in the mixing zone. If the department determines that an effluent has reasonable potential to cause or contribute to exceedance of the whole effluent toxicity limit, the department will require whole effluent toxicity testing as a condition of a permit, approval, or certification. The permittee shall use methods and species approved by the United States Environmental Protection Agency in Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, 4th edition (2002), Technical Report No. EPA-

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821-R-02-013, adopted by reference, and [(2D ED. 1989) (OFFICE OF RESEARCH AND DEVELOPMENT, CINCINNATI, OH, EPA-600/4-89/001),] Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms, 1st edition (August 1995), Technical Report No. EPA/600/R-95/136, adopted by reference [(1988) (OFFICE OF RESEARCH AND DEVELOPMENT, CINCINNATI, OH, EPA-600/4-87/028), AND SUPPLEMENT TO "SHORT-TERM METHODS FOR ESTIMATING THE CHRONIC TOXICITY OF EFFLUENTS AND SURFACE WATERS TO FRESHWATER ORGANISMS" (SEPTEMBER 1989) (OFFICE OF RESEARCH AND DEVELOPMENT, CINCINNATI, OH, EPA-600/4-89/001a, REVISION 1)], or alternate methods and species approved by the department that provide equivalent estimates of chronic toxicity. The department will require that the testing use sensitive and biologically important life stages of indigenous species, as the department considers necessary and feasible to protect aquatic life fully. The department will reduce the frequency of, or eliminate, whole effluent toxicity testing if

(Eff. 11/1/97, Register 143; am 4/29/99, Register 150; am <u>6/15/2006</u>, Register 178)

Authority:

AS 46.03.020

AS 46.03.070

AS 46.03.080

AS 46.03.050

Editor's note: Short-term Methods for Estimating the Chronic Toxicity of Effluents
and Receiving Waters to Freshwater Organisms and Short-term Methods for Estimating the
Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine

Register 176, Order 2006 ENVIRONMENTAL CONSERVATION

Organisms, adopted by reference in 18 AAC 70.030(a), are available for viewing at the department's Anchorage, Fairbanks, and Juneau offices. Those publications may also be obtained by contacting the United States Environmental Protection Agency, National Service Center for Environmental Publications (NSCEP), P.O. Box 42419, Cincinnati, Ohio 45242; telephone: (800) 490-9198; fax: (513) 489-8695. In addition, Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms is available at the website for the United States Environmental Protection Agency, Office of Water, Internet address: http://yosemite.epa.gov/water/owrcatalog.nsf; Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms is available at the website for the United States Environmental Protection Agency, National Environmental Publications Information System (NEPIS), Internet address: http://nepis.epa.gov.

18 AAC 70.990(34) is amended to read:

(34) "mean" means the average of values obtained over a specified time period and, for fecal coliform analysis, is computed as a geometric mean [LOGARITHM];

18 AAC 70.990(52) is amended to read:

(52) "settleable solids" means solid material of organic or mineral origin that is transported by and deposited from water, as measured by the volumetric Imhoff cone method and at the method detection limits specified in method 2540(F), in any edition of Standard Methods for the Examination of Water and Wastewater, adopted by reference in 18 AAC

Register 178, July 2006 ENVIRONMENTAL CONSERVATION 70.020(c)(1) [18TH EDITION (1992)];

18 AAC 70.990(70) is amended to read:

(70) "milliequivalents per <u>liter</u> [LITTER]" or "meq/l" mean milligrams per liter divided by the molecular weight of <u>a chemical species</u>, and multiplied by the electrical charge or valence of the species [THE CHEMICAL COMPOUND];

(Eff. 11/1/97, Register 143; am 4/29/99, Register 150; am 6/22/2003, Register 166; am

6/13/2006, Register 178)

Authority: AS 46.03.010 AS 46.03.080 AS 46.03.110

AS 46.03.020 [AS 46.03.090] AS 46.03.710

AS 46.03.050 AS 46.03.100 AS 46.03.720

AS 46.03.070

ORDER ADOPTING CHANGES TO REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

The attached nine pages of regulations, dealing with water quality standards for dissolved oxygen and with water quality analytical methods, are hereby adopted and certified to be a correct copy of the regulation changes that the Department of Environmental Conservation adopts under the authority of AS 46.03.020, 46.03.050, 46.03.070, and 46.03.080, and after compliance with the Administrative Procedure Act (AS 44.62), specifically including notice under AS 44.62.190 and 44.62.200 and opportunity for public comment under AS 44.62.210.

This action is not expected to require an increased appropriation.

In considering public comments, the Department of Environmental Conservation paid special attention to the cost to private persons of the regulatory action being taken. The Department of Environmental Conservation also gave special attention to alternate practical methods in this regulatory action, as required by AS 46.03.024.

The regulation changes adopted under this order take effect on the 30th day after they have been filed by the lieutenant governor, as provided in AS 44.62.180.

DATE: May 3, 2006 Juneau, Alaska

> urt Fredriksson. Commissioner Department of Environmental Conservation

FILING CERTIFICATION

I, Loren Leman, Lieutenant Governor for the State of Alaska, certify that on 2006, at //.12 p.m., I filed the attached regulations according to the provisions of AS 44.62.040 -44.62.120.

Register: 178, July

MEMORANDUM

Assistant Attorney General

State of Alaska

Department of Law

TO: Hon. Kurt Fredriksson

DATE: May 8, 2006

Commissioner

Department of Environmental Conservation FILE NO.: 993-05-0170

Legislation/Regulations Section--Juneau

TELEPHONE NO.: 465-3600

FROM: Steven C. Weaver

SUBJECT:

Regulations re: dissolved oxygen water quality standards and water

quality analytical methods

(18 AAC 70.020(b), (c); 18 AAC 70.030(a); 18 AAC 70.990(34),

(52), (70)

Under AS 44.62.060, we have reviewed the attached regulations changes by the Department of Environmental Conservation, and approve the changes for filing by the lieutenant governor. I have reviewed this project under a specific delegation dated April 25, 2006 from the Regulations Attorney. A duplicate original of this memorandum is being furnished to the lieutenant governor, along with the nine pages of regulations and the related documents.

You might wish to contact the lieutenant governor's office to confirm the filing date and effective date of the attached regulation changes.

The June 6, 2005 public notice and the May 3, 2006 adoption order both state that this action is not expected to require an increased appropriation. Therefore, a fiscal note under AS 44.62.195 is not required.

scw

cc w/enc:

Gary Mendivil, Regulations Contact Department of Environmental Conservation

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Frequently Asked Questions: 2005 Dissolved Oxygen and Analytical Methods Revisions

Dissolved Oxygen

What is Dissolved Oxygen? Dissolved Oxygen (DO) is a measure of the amount of oxygen that is dissolved in water. Temperature of the water affects the DO level; colder waters tend to have a higher DO level than warmer waters. Fish use it to breathe. It can be a measure of water quality: the higher the DO the better the water quality.

Why amend the DO provisions? During the 2003 triennial review seafood processors asked the Department to look at the Marine Water Supply Seafood Processing criterion for DO. Upon review the seafood processing criteria did not seem appropriate to the designated use it is supposed to protect and had no scientific basis.

What effect will this change have on water quality? The water that will be affected is the water drawn into seafood processing facilities and only used in the processing of seafood. No other uses of the water will be affected. This change will NOT affect the more stringent criterion for aquatic life in marine waters in bays, estuaries or the ocean. The most stringent criterion is used to determine if a wastewater discharge or a waterbody meets the state water quality standard. This change will not affect any fresh water criteria.

Analytical Methods

What are Analytical Methods? These are the methods used by laboratories to test water. The methods are standardized to ensure quality and repeatability among many different laboratories. The methods are updated periodically and the US Environmental Protection Agency (EPA) chooses to approve the updated methods.

Why amend the Analytical Methods? The changes to the analytical methods are intended to update the methods cited in the Alaska Water Quality Standards to be consistent with US Environmental Protection Agency (EPA) methods approved for the Clean Water Act purposes. The EPA published as published their list of updated approved methods in the Federal Register in October 2002. These are changes to the citation of measurement techniques, but they do not include and changes to the water quality criteria.

Who will be affected? Analytical laboratories will now be able to use the more recently approved standard methods. This will allow them to use the latest technology to produce more accurate results.